

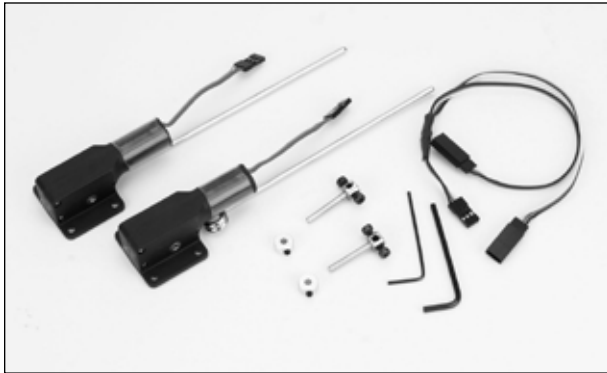


## 10- to 15-Size Electric Retract Instructions

Thank you for purchasing the E-flite® 10- to 15-Size Electric Retracts. These self-contained units are powered from your model's receiver and do not require separate servos.

The retracts are supplied with coil struts installed, plus adjustable axles, wheel collars, Allen wrenches and a 3-into-1 wire harness (for the tricycle set) or 2-into-1 wire harness (for main gear set). The nose gear unit is steerable and has a slot in the sliding steering arm to prevent binding of the steering cable when retracted.

### EFLG100



### EFLG110



### Specifications

Current draw	
Idle	5mA
Operating	150mA (maximum)

Pulse width trigger points	
Down	1.331ms
Up	1.690ms

Operation with FM and DSM	
FM	22ms frame rate, 5V signal
DSM	20ms frame rate, 3.3V signal

Sequence time	
@ 4.8V	1.25sec
@ 6.0V	1sec
@ 7.4V	0.8sec

Operating voltage range	4.8 – 7.4V
Aircraft weight:	2.0 - 4.5 lb (0.9 – 2.0 kg)
Unit weight: Nose gear	1.6 oz (45 g)
Main gear	1.3 oz (37 g) each

### Parts Available

EFLG101	10 - 15 Main Electric Retract Unit
EFLG102	10 - 15 Left Main Wire Strut
EFLG103	10 - 15 Right Main Wire Strut
EFLG104	10 - 15 Adjustable Axles
EFLRYH9	10 - 15 Dual Plug Y-harness
EFLG111	10 - 15 Nose Electric Retract Unit
EFLG112	10 - 15 Nose Gear Wire Strut
EFLG113	10 - 15 Nose Gear Steering Arm
EFLRYH9TR	10 - 15 Triple Plug Y-harness

### Tools Required

Pencil	Screwdriver
1.5mm hex wrench	2.5mm hex wrench
Flat file	Threadlock
Rotary tool with cutoff wheel	

### Installation

1. Test fit the retract unit in the wing or fuselage to determine the strut length and axle location. Cut the strut to length using a cutoff wheel in a rotary tool.



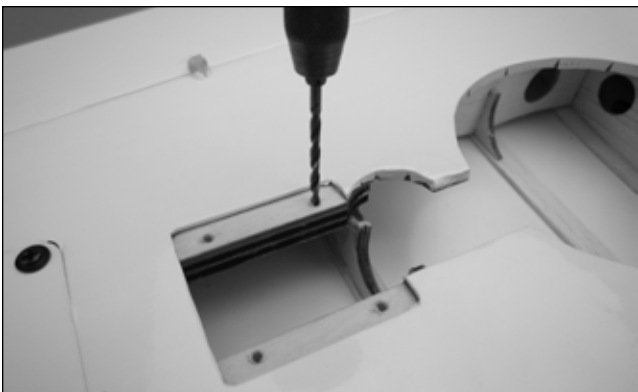
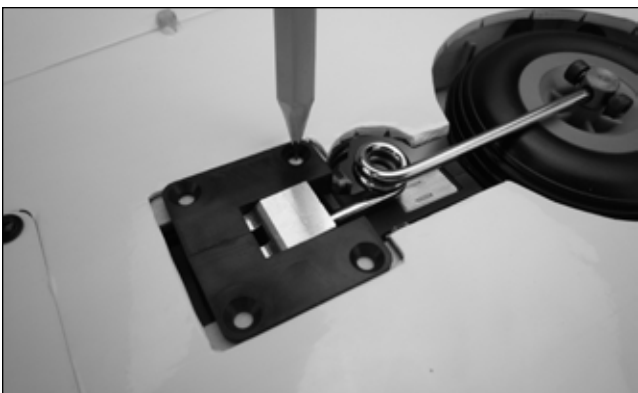
2. Make two flat spots on the end of the strut with a file and use a 2.5mm hex wrench to secure the axle to the strut. Apply threadlock to the threads of the retaining screws so they do not loosen from vibration.



3. Install the wheels on the axles. Slide the brass wheel collar onto the axle and secure it using a 1.5mm hex wrench. Apply threadlock to the setscrew to prevent it loosening due to vibration.



4. Mark the retract mounting hole locations on the rails using a pencil and drill appropriately sized holes for the hardware you intend to use.



5. Install the retracts in the model using the screws provided with the kit or those of your own choice. A #4 x 1/2-inch wood screw works well. You will find the main units require the use of a 100 degree countersunk woodscrew while the nose unit requires a button head woodscrew.



### **Nosegear Steering**

Connect the steering pushrod to the steering arm on the nosegear.

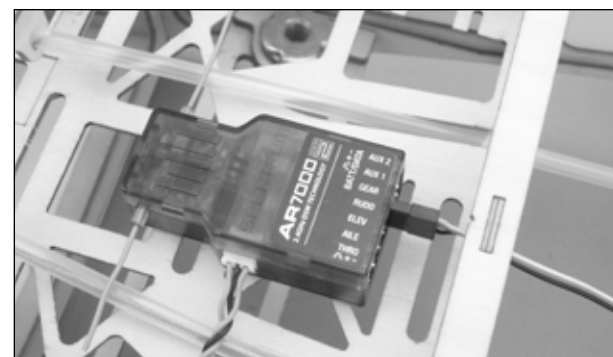


### **Radio Connections and Operation**

1. Plug the connector from each of the retract units into the 3-into-1 wire harness supplied with the retracts.



2. Plug the single lead from the wire harness into the gear channel of your receiver. An auxiliary channel can be used if the gear channel is occupied.



3. Before operating the retracts in the model for the first time check that there are no obstructions in the wheel wells that could impede operation of the gear.

4. Turn on your transmitter and receiver. Use the gear or other assigned switch to activate the landing gear and check that it operates correctly.

5. If the switch direction is opposite of that desired, use the reversing function in the transmitter to change the retraction direction.

6. If using a 2.4GHz radio, once you have set the correct servo direction be sure to rebind the system before flight.

## **Warranty Information**

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### **Warranty Period**

Exclusive Warranty- Horizon Hobby, Inc., (Horizon) warranties that the Products purchased (the "Product") will be free from defects in materials and workmanship for a period of 1 year from the date of purchase by the Purchaser.

### **Limited Warranty**

(a) This warranty is limited to the original Purchaser ("Purchaser") and is not transferable. REPAIR OR REPLACEMENT AS PROVIDED UNDER THIS WARRANTY IS THE EXCLUSIVE REMEDY OF THE PURCHASER. This warranty covers only those Products purchased from an authorized Horizon dealer. Third party transactions are not covered by this warranty. Proof of purchase is required for warranty claims. Further, Horizon reserves the right to change or modify this warranty without notice and disclaims all other warranties, express or implied.

(b) Limitations- HORIZON MAKES NO WARRANTY OR REPRESENTATION, EXPRESS OR IMPLIED, ABOUT NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OF THE PRODUCT. THE PURCHASER ACKNOWLEDGES THAT THEY ALONE HAVE DETERMINED THAT THE PRODUCT WILL SUITABLY MEET THE REQUIREMENTS OF THE PURCHASER'S INTENDED USE.

(c) Purchaser Remedy- Horizon's sole obligation hereunder shall be that Horizon will, at its option, (i) repair or (ii) replace, any Product determined by Horizon to be defective. In the event of a defect, these are the Purchaser's exclusive remedies. Horizon reserves the right to inspect any and all equipment involved in a warranty claim. Repair or replacement decisions are at the sole discretion of Horizon. This warranty does not cover cosmetic damage or damage due to acts of God, accident, misuse, abuse, negligence, commercial use, or modification of or to any part of the Product. This warranty does not cover damage due to improper installation, operation, maintenance, or attempted repair by anyone other than Horizon. Return of any goods by Purchaser must be approved in writing by Horizon before shipment.

### **Damage Limits:**

HORIZON SHALL NOT BE LIABLE FOR SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES, LOSS OF PROFITS OR PRODUCTION OR COMMERCIAL LOSS IN ANY WAY CONNECTED WITH THE PRODUCT, WHETHER SUCH CLAIM IS BASED IN CONTRACT, WARRANTY, NEGLIGENCE, OR STRICT LIABILITY. Further, in no event shall the liability of Horizon exceed the individual price of the Product on which liability is asserted. As Horizon has no control over use, setup, final assembly, modification or misuse, no liability shall be assumed nor accepted for any resulting damage or injury. By the act of use, setup or assembly, the user accepts all resulting liability.

If you as the Purchaser or user are not prepared to accept the liability associated with the use of this Product, you are advised to return this Product immediately in new and unused condition to the place of purchase.

Law: These Terms are governed by Illinois law (without regard to conflict of law principals).

### **Safety Precautions:**

This is a sophisticated hobby Product and not a toy. It must be operated with caution and common sense and requires some basic mechanical ability. Failure to operate this Product in a safe and responsible manner could result in injury or damage to the Product or other property. This Product is not intended for use by children without direct adult supervision. The Product manual contains instructions for safety, operation and maintenance. It is essential to read and follow all the instructions and warnings in the manual, prior to assembly, setup or use, in order to operate correctly and avoid damage or injury.

### **Questions, Assistance, and Repairs:**

Your local hobby store and/or place of purchase cannot provide warranty support or repair. Once assembly, setup or use of the Product has been started, you must contact Horizon directly. This will enable Horizon to better answer your questions and service you in the event that you may need any assistance. For questions or assistance, please direct your email to [productsupport@horizonhobby.com](mailto:productsupport@horizonhobby.com), or call 877.504.0233 toll free to speak to a service technician.

### **Inspection or Repairs**

If this Product needs to be inspected or repaired, please call for a Return Merchandise Authorization (RMA). Pack the Product securely using a shipping carton. Please note that original boxes may be included, but are not designed to withstand the rigors of shipping without additional protection. Ship via a carrier that provides tracking and insurance for lost or damaged parcels, as Horizon is not responsible for merchandise until it arrives and is accepted at our facility. A Service Repair Request is available at [www.horizonhobby.com](http://www.horizonhobby.com) on the "Support" tab. If you do not have internet access, please include a letter with your complete name, street address, email address and phone number where you can be reached during business days, your RMA number, a list of the included items, method of payment for any non-warranty expenses and a brief summary of the problem. Your original sales receipt must also be included for warranty consideration. Be sure your name, address, and RMA number are clearly written on the outside of the shipping carton.

### **Warranty Inspection and Repairs**

To receive warranty service, you must include your original sales receipt verifying the proof-of-purchase date. Provided warranty conditions have been met, your Product will be repaired or replaced free of charge. Repair or replacement decisions are at the sole discretion of Horizon Hobby.

### **Non-Warranty Repairs**

Should your repair not be covered by warranty the repair will be completed and payment will be required without notification or estimate of the expense unless the expense exceeds 50% of the retail purchase cost. By submitting the item for repair you are agreeing to payment of the repair without notification. Repair estimates are available upon request. You must include this request with your repair. Non-warranty repair estimates will be billed a minimum of ½ hour of labor. In addition you will be billed for return freight. Please advise us of your preferred method of payment. Horizon accepts money orders and cashiers checks, as well as Visa, MasterCard, American Express, and Discover cards. If you choose to pay by credit card, please include your credit card number and expiration date. Any repair left unpaid or unclaimed after 90 days will be considered abandoned and will be disposed of accordingly. Please note: non-warranty repair is only available on electronics and model engines.

**United States:**

Electronics and engines requiring inspection or repair should be shipped to the following address:

Horizon Service Center  
4105 Fieldstone Road  
Champaign, Illinois 61822  
USA

All other Products requiring warranty inspection or repair should be shipped to the following address:

Horizon Product Support  
4105 Fieldstone Road  
Champaign, Illinois 61822  
USA

Please call 877-504-0233 or e-mail us at [productsupport@horizonhobby.com](mailto:productsupport@horizonhobby.com) with any questions or concerns regarding this product or warranty.

**United Kingdom:**

Electronics and engines requiring inspection or repair should be shipped to the following address:

Horizon Hobby UK  
Units 1-4 Ployters Rd  
Staple Tye  
Harlow, Essex  
CM18 7NS  
United Kingdom

Please call +44 (0) 1279 641 097 or e-mail us at [sales@horizonhobby.co.uk](mailto:sales@horizonhobby.co.uk) with any questions or concerns regarding this product or warranty.

**Germany:**

Electronics and engines requiring inspection or repairs should be shipped to the following address:

Horizon Technischer Service  
Hamburger Strasse 10  
25335 Elmshorn  
Germany

Please call +49 4121 46199 66 or e-mail us at [service@horizonhobby.de](mailto:service@horizonhobby.de) with any questions or concerns regarding this product or warranty.

## Compliance Information for the European Union

### *Instructions for Disposal of WEEE by Users in the European Union.*

This product must not be disposed of with other waste. Instead, it is the user's responsibility to dispose of their waste equipment by handing it over to a designated collection point for the recycling of waste electrical and electronic equipment. The separate collection and recycling of your waste equipment at the time of disposal will help to conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment. For more information about where you can drop off your waste equipment for recycling, please contact your local city office, your household waste disposal service or where you purchased the product.



### **Declaration of Conformity**

(in accordance with ISO/IEC 17050-1)

**No. HH20091212**

Product(s): 10-15 size Electric Retracts  
Item Number(s): EFLG100, EFLG110  
Equipment class: 1

The object of declaration described above is in conformity with the requirements of the specifications listed below, following the provisions of the European EMC Directive 2004/108/EC:

EN55022	Radio disturbance characteristics
EN55024	Immunity characteristics

Signed for and on behalf of:  
Horizon Hobby, Inc.  
Champaign, IL USA  
Dec 12, 2009

Steven A. Hall  
Vice President  
International Operations and Risk Management  
Horizon Hobby, Inc.



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